

REMARKS

In response to the office action dated 1 November 2007, the applicants request reconsideration of the above-identified application in view of the following remarks. Claims 1, 3-7, and 9-20 are pending in the application, and are rejected. Claims 13 and 17 will be amended, and claims 14-15 and 18-19 will be canceled, upon entry of the present amendment. No new matter has been added.

Rejections of Claims Under §103

The Supreme Court recently addressed the requirements of rejections of claims under 35 USC § 103 in *KSR*.¹ The Court in *KSR* stated that “[t]o facilitate review, this analysis should be made explicit....[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” The Court also stated that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” The Court in *KSR* repeated the instruction from *Graham*² to “guard against slipping into the use of hindsight.”³ In 1967 the CCPA stated that “[a] rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art.”⁴

Claims 1 and 4 were rejected under 35 USC § 103(a) as being unpatentable over Koohgoli et al. (U.S. Patent 5,276,908, Koohgoli) in view of Raaf (U.S. Patent No. 6,785,514 B1). The applicants respectfully traverse.

The applicants note that Koohgoli was referred to in the office action as Keyhole, although the U.S. Patent No. 5,276,908 corresponds to Koohgoli. This response will refer to US 5,276,908 as Koohgoli.

¹ *KSR Int'l. v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007).

² *Graham v. John Deere Co.*, 148 USPQ 459 (1966).

³ *KSR Int'l. v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007).

⁴ *In re Warner*, 154 USPQ 173, 178 (CCPA 1967).

Koohgoli relates to dynamic channel allocation and mentions scanning available traffic channels but does not show “determining a larger gap between available channels” and “selecting a channel within the larger gap” as is recited in independent claim 1.

Raff relates to a method for transmitting information and describes in columns 3-4 allocating channels by regulating authorities. In column 4, lines 8-16, Raaf describes a problem of increased interference and states that:

“it also can be advantageous to insert a greater frequency spacing, on a larger guard band, between the frequency channels f of different layers of the hierarchical structure than between frequency channels f of the same layer.” Raff, column 4, lines 8-16.

In this text cited in the office action Raaf does not show “determining a larger gap between available channels and selecting a channel within the larger gap” as is recited in independent claim 1. Raaf is not discussing how to select a channel, and this text of Raff is not relevant to selecting a channel. Raff is describing that it can be advantageous to have a larger guard band between channels of different layers rather than between channels of the same layer. Raaf is comparing channels in the same layer with channels in different layers, and this does not teach the feature recited in claim 1.

Raaf then describes between column 5, line 40 and column 6, line 15, scanning only channels that are defined by an equation such as channels “having a center frequency m of $n*5 \text{ MHz} + k*200 \text{ kHz}$ ” such that only a fraction of possible channels are actually scanned saving energy.

Raff is thus very different from Koohgoli where a base station scans “all available traffic and signaling channels” (Koohgoli, column 5, lines 18-33) and select channels that are free of interference. See also Koohgoli, column 7, lines 3-5. One skilled in the art would not modify Koohgoli with Raaf because Raaf teaches away from Koohgoli. The scan of Koohgoli is incompatible with the scan of Raff.

Claim 4 is dependent on claim 1 and recites further features with respect to claim 1. The office action has not identified a factual basis or a rational underpinning that supports a modification of Koohgoli by Raff, and has instead relied on hindsight reconstruction to reject claims 1 and 4. The applicants respectfully submit that a *prima facie* case of obviousness of

claims 1 and 4 has not been established in the office action, and that claims 1 and 4 are in condition for allowance.

Claims 3 and 5 were rejected under 35 USC § 103(a) as being unpatentable over Koohgoli in view of Raaf and further in view of Frixon (U.S. Patent No. 5,138,456). The applicants respectfully traverse.

One skilled in the art would not be motivated to combine Koohgoli with Raaf for the reasons stated above with respect to claim 1.

Frixon only relates to the transmission of video signals between 400 and 800 MHz. Furthermore, Frixon describes a camera that scans the range of frequencies between 400 and 800 MHz and then selects a free channel on which to transmit to a television. The frequency selected is displayed on a display device and a user must adjust a television set to pick up transmissions from the camera. Frixon depends on a human user to tune a television to a frequency selected as a result of a scan. Frixon is very different from both Koohgoli and Raff, so different that it is non-analogous art. One skilled in the art using common sense would not have looked to Frixon to modify Koohgoli or Raff.

The office action has not identified a factual basis or a rational underpinning that supports this combination of references, and has instead relied on hindsight reconstruction to reject claims 3 and 5. The applicants respectfully submit that a *prima facie* case of obviousness of claims 3 and 5 has not been established in the office action, and that claims 3 and 5 are in condition for allowance.

Claim 6 was rejected under 35 USC § 103(a) as being unpatentable over Koohgoli in view of Raaf and further in view of Lopez (U.S. Patent No. 7,177,291 B1). The applicants respectfully traverse.

One skilled in the art would not be motivated to combine Koohgoli with Raaf for the reasons stated above with respect to claim 1.

Lopez discusses two local networks N1 and N2 and a new mobile terminal MT5 that is to be integrated into an existing network. If MT5 attempts to communicate with N1 and there is a collision with traffic from N2, MT5 requests a new frequency from N1. MT5 may suggest a

channel to N1 after monitoring various channels, but N1 selects a new frequency based on a criteria not described in Lopez. The monitoring of channels by MT5 does not directly lead to a selection of a new channel, and in fact the new channel selection is not described as a result of a scan of available frequencies. Lopez is therefore very different from Koohgoli and Raaf and one skilled in the art would not have been motivated to combine the three references.

The office action has not identified a factual basis or a rational underpinning that supports this combination of references, and has instead relied on hindsight reconstruction to reject claim 6. The applicants respectfully submit that a *prima facie* case of obviousness of claim 6 has not been established in the office action, and that claim 6 is in condition for allowance.

Claims 7 and 10 were rejected under 35 USC § 103(a) as being unpatentable over Choi et al. (U.S. Patent No. 7,206,840 B2, Choi) in view of Raff. The applicants respectfully traverse.

Choi relates to dynamic frequency selection and describes “monitoring of channels” in which the status of “current and other channels” is determined. Choi column 4, lines 16-39. Choi does not limit the channels monitored in the way Raaf does. Choi also does not show “determining a larger gap between available channels” and “selecting a channel within the larger gap” as is recited in independent claim 7.

Raff describes in columns 3-4 allocating channels by regulating authorities. The office action cited text in column 4, lines 8-16, in which Raaf describes a problem of increased interference and states that:

“it also can be advantageous to insert a greater frequency spacing, on a larger guard band, between the frequency channels *f* of different layers of the hierarchical structure than between frequency channels *f* of the same layer.” Raff, column 4, lines 8-16.

In this text cited in the office action Raaf does not show “determining a larger gap between available channels and selecting a channel within the larger gap” as is recited in independent claim 7. Raaf is not discussing how to select a channel, and this text of Raff is not relevant to selecting a channel. Raff is describing that it can be advantageous to have a larger guard band between channels of different layers rather than between channels of the same layer. Raaf is comparing channels in the same layer with channels in different layers, and this does not teach the features recited in claim 7.

Raaf then describes between column 5, line 40 and column 6, line 15, scanning only channels that are defined by an equation such as channels “having a center frequency m of $n*5$ MHz + $k*200$ kHz” such that only a fraction of possible channels are actually scanned saving energy.

Raff is thus very different from Choi which does not limit the channels monitored in the way Raaf does. One skilled in the art would not modify Choi with Raaf because Raaf teaches away from Choi. The scan of Choi is incompatible with the scan of Raff.

Claim 10 is dependent on claim 7 and recites further features with respect to claim 7. The office action has not identified a factual basis or a rational underpinning that supports a modification of Choi by Raff, and has instead relied on hindsight reconstruction to reject claims 7 and 10. The applicants respectfully submit that a *prima facie* case of obviousness of claims 7 and 10 has not been established in the office action, and that claims 7 and 10 are in condition for allowance.

Claims 9 and 11 were rejected under 35 USC § 103(a) as being unpatentable over Choi in view of Raaf and further in view of Frixon. The applicants respectfully traverse.

One skilled in the art would not be motivated to combine Choi with Raaf for the reasons stated above with respect to claim 7. One skilled in the art would not be motivated to combine Frixon with Raaf and Choi for the reasons stated above with respect to claims 3 and 5. Frixon is very different from both Choi and Raff, so different that it is non-analogous art.

The office action has not identified a factual basis or a rational underpinning that supports this combination of references, and has instead relied on hindsight reconstruction to reject claims 9 and 11. The applicants respectfully submit that a *prima facie* case of obviousness of claims 9 and 11 has not been established in the office action, and that claims 9 and 11 are in condition for allowance.

Claim 12 was rejected under 35 USC § 103(a) as being unpatentable over Choi in view of Raaf and further in view of Lopez. The applicants respectfully traverse.

One skilled in the art would not be motivated to combine Choi with Raaf for the reasons stated above with respect to claim 7. One skilled in the art would not be motivated to combine Lopez with Raaf and Choi for the reasons stated above with respect to claim 6.

The office action has not identified a factual basis or a rational underpinning that supports this combination of references, and has instead relied on hindsight reconstruction to reject claim 12. The applicants respectfully submit that a *prima facie* case of obviousness of claim 12 has not been established in the office action, and that claim 12 is in condition for allowance.

Claim 13 was rejected under 35 USC § 103(a) as being unpatentable over Choi in view of Sugar et al. (U.S. Patent No. 7,248,604 B2, Sugar). The applicants respectfully traverse.

Independent claim 13 will be amended upon entry of the present amendment to include features recited in original claim 15. The applicants respectfully submit that amended independent claim 13 is in condition for allowance for the reasons stated below with respect to claim 15.

Claims 15-16 were rejected under 35 USC § 103(a) as being unpatentable over Choi in view of Sugar and further in view of Frixon. The applicants respectfully traverse.

Independent claim 13 will be amended upon entry of the present amendment to include features recited in original claim 15, and remarks on the rejection based on Choi, Sugar, and Frixon are made with reference to amended independent claim 13 and claim 16 dependent thereon. Claim 15 will be canceled upon entry of the present amendment.

Choi relates to dynamic selection of a channel between an access point and a plurality of stations. Sugar relates to a wireless communications network. Neither Choi nor Sugar show “selecting a larger gap at a higher frequency” and “selecting a channel from a channel indicated as available within the larger gap at a higher frequency,” of the features recited in amended independent claim 13.

Frixon relates to the transmission of video signals and describes selecting “an emission frequency located substantially in the middle of the largest interval separating two channels.” Frixon, column 4, lines 38-44. Frixon does not show “selecting a channel from a channel indicated as available within the larger gap at a higher frequency” as is recited in amended

independent claim 13. Therefore, even as combined, Choi, Sugar, and Frixon do not show all of the features recited in amended claim 13.

As stated above with respect to claims 3 and 5, Frixon only relates to the transmission of video signals between 400 and 800 MHz. Furthermore, Frixon describes a camera that scans the range of frequencies between 400 and 800 MHz and then selects a free channel on which to transmit to a television. The frequency selected is displayed on a display device and a user must adjust a television set to pick up transmissions from the camera. Frixon depends on a human user to tune a television to a frequency selected as a result of a scan. Frixon is very different from both Choi and Sugar, so different that it is non-analogous art. One skilled in the art using common sense would not have looked to Frixon to modify Choi or Sugar.

The office action on page 18 indicated that features recited in rejected claims 15 and 16 were a matter of design choice. *In re Warner* indicates that “[a] rejection based on section 103 clearly must rest on a factual basis.” The rejection of the features of claims 15 and 16 is not founded on a factual basis such as a reference, but rather is supported only by speculation called “design choice” contrary to *In re Warner*. The applicants respectfully request that this rejection be withdrawn.

The office action has not identified a factual basis or a rational underpinning that supports this combination of references, and has instead relied on hindsight reconstruction to reject claims 13 and 16. The applicants respectfully submit that a *prima facie* case of obviousness of claims 13 and 16 has not been established in the office action, and that claims 13 and 16 are in condition for allowance.

Claim 17 was rejected under 35 USC § 103(a) as being unpatentable over Choi in view of Sugar and further in view of Pope, Jr. et al. (U.S. Patent No. 6,654,616 B1, Pope). The applicants respectfully traverse.

Independent claim 17 will be amended upon entry of the present amendment to include features recited in original claim 19. The applicants respectfully submit that amended independent claim 17 is in condition for allowance for the reasons stated below with respect to claim 17.

Claims 19-20 were rejected under 35 USC § 103(a) as being unpatentable over Choi in view of Sugar, Pope, and Frixon. The applicants respectfully traverse.

Independent claim 17 will be amended upon entry of the present amendment to include features recited in original claim 19, and remarks on the rejection based on Choi, Sugar, Pope, and Frixon are made with reference to amended independent claim 17 and claim 20 dependent thereon. Claim 19 will be canceled upon entry of the present amendment.

Choi relates to dynamic selection of a channel between an access point and a plurality of stations. Sugar relates to a wireless communications network. Pope relates to a wireless area network. Neither Choi nor Sugar nor Pope show “selecting a larger gap at a higher frequency” and “selecting a channel from a channel indicated as available within the larger gap at a higher frequency” of the features recited in amended independent claim 17.

As stated above with respect to claims 13 and 16, Frixon does not show “selecting a channel from a channel indicated as available within the larger gap at a higher frequency” as is recited in amended independent claim 17. Therefore, even as combined, Choi, Sugar, Pope, and Frixon do not show all of the features recited in amended claim 17.

As stated above with respect to claims 13 and 16, Frixon is non-analogous art. In addition, the rejection of the features of claims 19 and 20 is not founded on a factual basis such as a reference, but rather is supported only by speculation called “design choice” contrary to *In re Warner*. The applicants respectfully request that this rejection be withdrawn.

The office action has not identified a factual basis or a rational underpinning that supports this combination of references, and has instead relied on hindsight reconstruction to reject claims 17 and 20. The applicants respectfully submit that a *prima facie* case of obviousness of claims 17 and 20 has not been established in the office action, and that claims 17 and 20 are in condition for allowance.

RESERVATION OF RIGHTS

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.


CONCLUSION

The applicants respectfully submit that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at 612-373-6973 to discuss any questions which may remain with respect to the present application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

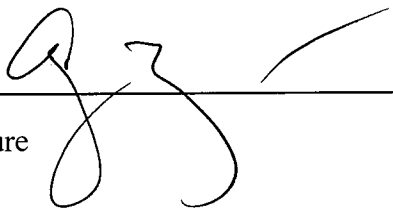
Respectfully submitted,

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Date 1 February 2008 By 
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 1st day of February 2008.

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Name


Signature